

CLAIMS

1. A radical reaction inhibitory agent, comprising as an effective ingredient a cyclotetrasaccharide represented by
5 cyclo{→6)-α-D-glucopyranosyl-(1→3)-α-D-glucopyranosyl-(1→6)-α-D-glucopyranosyl-(1→3)-α-D-glucopyranosyl-(1→} or a mixture of said cyclotetrasaccharide and its saccharide derivative(s).

2. The radical reaction inhibitory agent of claim 1, which further contains α,α-trehalose and/or maltitol.

10 3. The radical reaction inhibitory agent of claim 1 or 2, which further contains a radical scavenger.

4. The radical reaction inhibitory agent of claim 3, wherein said radical scavenger is one or more members selected from the group consisting of vitamins, flavonoids, polyphenols, terpenes,
15 unsaturated fatty acids, and antioxidants.

5. The radical reaction inhibitory agent of any one of claims 1 to 4, which further contains one or more members selected from the group consisting of reducing saccharides, non-reducing saccharides, cyclodextrins, water-soluble polysaccharides, spices,
20 acids, tastes, alcohols, inorganic salts, emulsifiers, flavors, and pigments.

6. The radical reaction inhibitory agent of any one of claims 1 to 5, which contains said cyclotetrasaccharide in an amount of at least 1 w/w %, on a dry solid basis.

25 7. A composition which the radical reaction is inhibited and which comprises an unsaturated compound and the radical reaction inhibitory agent of any one of claims 1 to 6.

8. The composition of claim 7, wherein said unsaturated compound is one or more members selected from the group consisting

of fatty acids, simple lipids, conjugated lipids, terpenes, alcohols, glycosides, vitamins, proteins, peptides, amino acids, enzymes, hormones, cytokines, antibodies, flavors, pigments, dyes, emulsifiers, high molecules, and vinyls.

5 9. The composition of claim 8, wherein said vitamin is one or more members selected from the group consisting of vitamin D, vitamin E, and derivatives thereof.

10 10. The composition of any one of claims 7 to 9, which is a food product, cosmetic, quasi-drug (or medicated cosmetic), pharmaceutical, feed, pet food including bait, daily good, chemical industrial product, or a shaped product made from high molecules.

15 11. A method for inhibiting radical reaction, comprising a step of incorporating the radical reaction inhibitory agent of any one of claims 1 to 6 into a composition comprising an unsaturated compound.

20 12. A method for inhibiting radical reaction, comprising a step of incorporating the radical reaction inhibitory agent of any one of claims 1 to 6 into a composition comprising an unsaturated compound in order to prevent an ingredient in said composition other than said unsaturated compound from being denatured by a peroxide of an unsaturated compound, formed by radical reaction.

25 13. The method of claim 10 or 11, wherein said unsaturated compound is one or more members selected from the group consisting of fatty acids, simple lipids, conjugated lipids, terpenes, alcohols, glycosides, vitamins, proteins, peptides, amino acids, enzymes, hormones, cytokines, antibodies, flavors, pigments, dyes, emulsifiers, high molecules, and vinyls.

14. The method of claim 13, wherein said vitamin is one or more members selected from the group consisting of vitamin D,

vitamin E, and derivatives thereof.

15. The method of any one of claims 11 to 14, which is
a food product, cosmetic, quasi-drug (or medicated cosmetic),
pharmaceutical, feed, pet food including bait, daily good, chemical
5 industrial product, or a shaped product made from high molecules.